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No. 2

GOVERNMENT OF NORTHERN IRELAND

MINISTRY OF AGRICULTURE

MONTHLY REPORT

JUNE, 1937

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GOVERNMENT OF NORTHERN IRELAND

MINISTRY OF AGRICULTURE

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MINISTRY OF AGRICULTURE

MONTHLY REPORT

JUNE, 1937.

Now that rain has fallen in sufficient quantity to promote more vigorous growth, the general position of the growing crops has materially improved since the end of May, and the prospects for the season have brightened. Although spring work was unduly delayed this year, it was eventually completed under favourable conditions, and should the summer months make amends for earlier setbacks the harvest may not be so late as was generally foreshadowed some little time ago.

The better weather of May, and the continued improvement in trade for live stock and potatoes, brought about a more optimistic feeling in the country, and inspired the hope that there may be good harvests this year to earn reasonably remunerative returns, which are likely in view of the improved trade conditions in other industries, and the proposals recently announced in the Imperial House of Commons for the assistance of cereal growers in the United Kingdom. Some idea of the latter may be gained from the account on page 74. Meanwhile, as stated, the live stock industry continues in a flourishing state; good quality store cattle are fetching very high prices, whilst beef cattle remain a sound trade, and the present demand for fat sheep and lambs indicates the possibilities of considerable development this year.

As far as can be ascertained at present the fruit crop is progressing satisfactorily, and there should be good yields of all fruits, with the possible exceptions of pears and strawberries. It is hoped to furnish a detailed report on the position in next month's issue.

AGRICULTURAL CONDITIONS.

AGRICULTURAL CONDITIONS AT 1st JUNE, 1937.

It is gratifying to record that the weather conditions throughout almost the entire month of May were highly favourable for outdoor work, and that as a result tillage operations, unduly delayed this spring by extremely adverse weather and soil conditions, were nearly completed satisfactorily, albeit a month later than usual.

Notwithstanding the general dryness of the weather compared with previous months, there was considerable variety in the climatic conditions of May. Rain was absent on most days, but there were some showers at intervals in the earlier part between the rather dull and cool spells and the bright and warm days, whilst later heavy thundery showers were welcomed in many areas where growth was retarded by low temperatures and dry soil conditions. In general, however, more rain and heat was required at the close of the month to hasten growth.

Now that most of the sowing and planting work has been done, it is possible to give a clearer indication of the changes in the areas under the various crops this year. As foreshadowed in the May report, it seems probable from all accounts that the areas under oats, barley and potatoes have increased, and wheat and flax decreased. Doubtless the increases in the areas of oats and barley have been brought about by the intentions of most farmers to lessen their dependence on purchased foodstuffs, whilst in regard to potatoes the improved prices realised for last season's crop were a strong incentive to increase production. Flax, on the other hand, has proved disappointing as a paying proposition, and it is feared that the total area this year may fully reflect its decline in favour. Weather and soil conditions of last winter and spring alone were responsible for the decrease in the wheat acreage.

The progress of growing crops has been fairly good, but moister and sunnier conditions would have improved the general outlook.

Pastures improved during the past month, although growth was checked to some extent by the rather dry and cool conditions prevailing for the most part. Cattle have now been turned out to pasture, and the position in regard to feeding-stuffs was eased further. In light soil areas the quantity of succulent grass was somewhat limited, and pasture lands in these districts were looking bare towards the close of the month.

Small supplies of fodder and roots were still available on a number of farms, but in the large majority stocks had been exhausted. With the improvement in the situation in regard to keep, however, most of the anxieties about the feeding question have disappeared, and purchases of meals and concentrated foods were reduced to a minimum last month in order to cut down production costs. Prices of home-grown foods last month remained high, as also did purchased feeding-stuffs.

The general condition and health of live stock has been satisfactory, but many animals are still in a backward condition from the severe weather of the past season, and the milk yield is still slightly depressed.

THE CROPS.

WHEAT.—As already stated, the total area under wheat is likely to be smaller than last year. Reports as to the growing crop differ to some extent, but as a general rule the brairds are making fair progress. Some fields sown with winter varieties of wheat brairded so thinly that they had to be resown, whilst in many other cases they are rather thin and in a backward state of growth. On the other hand, there are a number of fields where the crop has brairded exceptionally well, and growth has made good progress after dressings of nitrogenous manures had been applied. Spring-sown wheat has generally made fairly good growth, but as in the case of all crops, additional moisture, accompanied by more sunshine, would prove very beneficial.

OATS.—The sowing of this crop was completed by the end of May, and it is estimated that the area this year will be slightly larger than last year's. In some quarters it is held that had the season been a normal one, the increased area under oats this season would have been much more marked, and there certainly seems to be good reason for this view. Growth was fairly rapid during the month, in some instances so marked as to suggest a normal sowing season. On the other hand, the brairds of early-sown oats, more especially on lea land, were badly attacked by the Leather-jacket grub, and in some fields the damage was so severe as to necessitate re-sowing. Wireworm also has caused damage to a few fields. Apart from these setbacks, which, fortunately, are not the general experience throughout the country, the crop is doing well.

Supplies of white oats at markets during May continued to decrease, and prices moved steadily upwards, and averaged 8/5d. per cwt. over the month, compared with 7/11¼d. per cwt. during April.

BARLEY.—It is reckoned that the total area under this crop has increased to a fairly appreciable extent over last season's. Growth has been satisfactory as a general rule, but there are many fields where the brairds are backward, chiefly as the result of the cold damp state of the ground at sowing

time, but also due to the low temperatures ruling at night throughout the past month. In the case of late sowings weather and soil conditions were very favourable, and growth has been remarkably good.

FLAX.—The sowing of the flax crop was completed early last month. In most districts this has been done on a much smaller scale than last season. With good weather and soil conditions prevailing for sowing, the crop has brairded well. As in the case of oats, however, the Leather-jacket grub has been active, whilst the Flax "Fly" was also responsible for damage. Some re-sowings were necessary, but otherwise the damage was slight, and the crop is in a satisfactory condition.

At the last flax market, held at Omagh during May, a small quantity ranged in price from 7/9d. to 9/9d., and averaged 9/- per stone, as against 9/3½d. for April.

POTATOES.—The planting of main crop varieties has been practically completed. This work was much delayed this year, but since conditions were favourable during May, the total extent of the area under potatoes this season has not suffered; rather the contrary effect seems to be generally indicated from the accounts of increased areas planted in most districts. Early varieties of potatoes are growing well.

Only very small supplies of last year's crop remain on farms. The tubers have kept fairly well since lifting from the pits, but the quality is generally only moderate.

Decreased supplies of ware potatoes were offered at local markets during May, and with trade becoming keener during the month, prices advanced sharply, and although at the close they tended to weaken slightly, the returns remained rather more remunerative than for some years past. The average price for all classes for May was 5/4½d. per cwt., compared with 4/6½d. per cwt. for the month previously, and 3/7d. for the corresponding month of last year.

Weekly purchases by shippers during last month were fairly uniform throughout, and prices advanced steadily during May, but at the close quotations for the much smaller quantities changing hands were a shade weaker. The following were the prices for the week ended the 29th May, which marked the peak period for last year's crop:—

	Bagged.	Loose.
Up-to-Date (Red Soil)	£5-10-0 to £6- 0-0	£5-5-0 to £5-15-0
Up-to-Date (Grey Soil)	£5- 5-0 to £6- 0-0	£5-0-0 to £5-10-0
Arran Banner	£5- 0-0 to £5-15-0	£5-0-0 to £5-10-0
Arran Consul	£5-10-0 to £6- 0-0	£5-0-0 to £5-10-0
Arran Victory	£4-10-0 to £5-15-0	£4-5-0 to £5-10-0
Kerr's Pink	£4-10-0 to £6- 0-0	£4-5-0 to £5-10-0

The records of weekly shipments are contrasted with last year's hereunder:

1937		1936	
Week ending	Tons	Week ending	tons
May 1st	.. 4,559	May 2nd	.. 13,221
8th	.. 5,029	9th	.. 6,950
15th	.. 3,669	16th	.. 3,617
22nd	.. 4,979	23rd	.. 3,711
29th	.. 4,924	30th	.. 3,688

TURNIPS.—The greater portion of the turnip crop was sown last month when weather and soil conditions were very favourable, and this work is proceeding apace in late districts. The brairds have appeared thick and strong and are making good growth as a general rule, but some ground frosts in exposed places, and attacks of the Turnip "Fly" have caused a little damage. Rain and heat are needed to promote stronger growth.

MANGELS.—In most districts sowings were completed last month under ideal conditions. The young brairds have appeared strong and healthy, and are making good growth.

HAY.—The growing crops are looking well, and the prospects for good yields are reasonably bright, but in many fields growth has been retarded by the low temperatures, and more sunshine following showers would promote greater growth and ensure richer yields. Upland hay was naturally mostly affected by the cool dry weather, and unless damper and warmer conditions arrive soon the yields may be lower than last year's.

Compared with supplies at markets during April, the May returns were very small indeed, and in regard to prices Upland hay was 1/1d. cheaper on the month at 73/7d. per ton, whilst Meadow hay was stationary at 58/1d. per ton.

LIVE STOCK.

CATTLE.—Store cattle are generally in fairly good condition, and there have been no outbreaks of disease or other serious forms of ill-health. With the improvement in grasslands the animals have thriven moderately well, but quite a fair proportion of the stock are a little backward in condition for the time of the year. The reports from nearly all districts confirm the view already expressed that numbers have declined on the year, chiefly as the result of the well-sustained demand throughout the past five months for forward stores, and the consequent decline in the breeding stock following the practice of disposing of too many young heifers for the Cattle Subsidy. Stall feeding for beef also declined on the year, as feeders found it an uneconomic proposition with store prices at relatively high levels, and feeding costs appreciably dearer. It was, however, noted that the tendency to fatten off young cows that were not shaping well as milkers was on the increase during recent weeks when beef prices reached their high levels.

Dairy cattle have been maintained in fairly good condition, but it is evident that following two severe seasons the cool temperatures of last month were not conducive to a normal thrive, and many animals are backward in condition for the time of the year. This was also reflected in the milk yield which remained slightly below the normal for the time of year. It is also understood that in some districts calving has been less satisfactory than usual.

Fairly good supplies of cattle at fairs last month met a satisfactory trade, and forward stores and fat cattle established higher price levels than for some time past.

SHEEP.—There has been an appreciable improvement in the condition of the flocks since keep became more plentiful, but many young ewes are still backward after a severe season, and fat lambs are less forward in condition than normally at this time of the year. Some deaths have occurred among young lambs from wool-ball trouble, but otherwise this season's crop of lambs, which was of about average dimensions, are making fair progress. Supplies at fairs continued small, and a very sharp trade ruled for the limited numbers of fat lambs, most of which were a little backward in condition, whilst fat sheep also sold readily at remunerative rates.

PIGS.—Supplies of young pigs at fairs last month were smaller than usual, and, with a steady trade, good clearances were effected at firm rates. Store pigs were a dull trade at the beginning of May, but improved towards the close. There was a moderately good enquiry for breeding sows, and the best types of Yorks and York crosses sold well at fully late rates.

HORSES.—There was a good demand in evidence during May for the best types of farm and draught horses, and prices for these ranged from £45 to £60 each. Cross-channel buyers were active in some districts, and some business was transacted at prices in the neighbourhood of £60 each. Useful farm horses at from £20 to £35 each are still a fairly good trade.

MILK.—Supplies have increased since grass lands have improved, but due to the low temperatures on most days of last month, they are still a shade below the normal for the time of year. Creameries paid from 4d. to 5½d. per gallon for milk delivered, the separated milk being returned to the farmer.

The average price paid for milk produced in Northern Ireland and delivered to creameries for manufacturing purposes was 5.09d. per gallon for the month of April, 1937, and as this price exceeds the standard price of 5d. per gallon as provided by the Milk and Milk Products Act (Northern Ireland), 1934, no equalisation payments were made in respect of that month.

THE COST OF LIVING INDEX FIGURE.

At 1st May, 1937, the cost of living index figure was 52, or one point above that for the previous month. The figure at 1st May, 1936, was 44.

THE MARKETS DURING MAY.

Supplies of the principal vegetables marketed last month included larger quantities of pamphrey, cauliflowers, leeks and parsley, and smaller offerings of carrots, parsnips and garden turnips, compared with April. Prices in the main were cheaper on the month, for although considerably larger supplies of pamphrey were ¼d. dearer at 1/1d. per dozen, and cauliflowers advanced by 8¼d. to 1/10½d. per dozen, leeks cheapened by 2¾d. to 3¾d. per bunch, parsley by 1½d. to 3½d. per bunch, carrots by 2d. to 6/4d. per cwt., parsnips by 10d. to 6/2d. per cwt., and garden turnips by 4¼d. to 1/3d. per cwt. Farmers' butter recorded a slight increase in supply, chiefly as a result of a larger quantity of lump butter being marketed. Prices were unaltered on the month at 1/2d. per lb. per print butter, and 11¼d. per lb. per lump. Supplies of hen and duck eggs were less plentiful than in April, and prices cheapened further by ¼d. to 5¼d. per lb. for hen eggs, and by 1/4½d. to 6/4½d. per 120 for duck eggs. In the poultry markets hens and chickens were less numerous, but supplies of ducks increased on the month. Hens were 1d. dearer at 1/8¾d. each, chickens 1¾d. dearer at 2/7½d. each, while ducks were ½d. cheaper at 2/2½d. each. Supplies of wool were marketed in increasing quantities, and long, unwashed wool was ¾d. dearer at 1/- per lb.; while mountain unwashed wool sold at late rates at 10d. per lb.

DEVELOPMENTS IN AGRICULTURAL POLICY.

On May 27th Mr. Morrison, Minister of Agriculture, made an important statement in the Imperial House of Commons with regard to agricultural policy. A brief outline of the new proposals is given in this article.

In the past few years Government policy has consisted of an attempt to increase the return on particular agricultural commodities through regulation of imports of these products, reorganisation of their marketing, and through direct assistance to producers. In carrying out this policy the Government has had in mind the welfare of the agricultural community, the need for ensuring maximum supplies for the consumer consistent with reasonable remuneration to the producer and, of late, the needs of national defence have been a factor of increasing importance in determining policy. Accordingly, in Northern Ireland alone, a number of schemes for the re-organisation of marketing have been instituted—the Pigs Marketing Scheme and the Butter and Cream Marketing Scheme have been introduced under the Agricultural Marketing Act (Northern Ireland), 1933, to regulate the sale, and to stabilize the prices of pigs and butter and cream respectively; the Milk and Milk Products Act was brought in in 1934 to stabilize the price of milk, to improve the quality of milk sold on the liquid milk market, and to secure for the producer payment according to the quality of his product; and last year an Act was passed providing, among other things, for an Egg Marketing Committee with power to advise the fixing of prices for eggs on a quality basis.

As a result of certain measures which have been passed through the Imperial Parliament, Northern Ireland farmers have received substantial direct assistance. The cattle and dairying industries, which are responsible for roughly 37% of the output of all live stock, and cereals and their products have received assistance to the extent of £1,098,732—£707,598 from the Beef Subsidy, and £391,134 from the Milk Industry Assistance Grant. Wheat growers in Northern Ireland have also benefited under the Wheat Act, 1932, and altogether have received £82,364 by way of subsidy.

Policy is now striking out in a new direction. In the first place, as Mr. Morrison indicated, the Government proposes to take measures to increase the fertility of the soil. It is evident, in view of the increasing importance of national defence, in determining the direction of agricultural production that it is necessary, as far as possible, to increase the productivity of the soil. At the same time, if agricultural production in peace time is over-stimulated, the country, in the Minister's words, would be faced with a highly artificial situation which would sooner or later have to be liquidated if the emergency

did not arise. Thus the Government has chosen a middle course, and is proposing a measure which, without leading to any abnormal production in time of peace, will increase the potentialities of the land for abnormal production in time of war. As a result of the long depression, farmers have been unable to afford the expense of applying lime to the soil. In this connection the Minister said: "The result has been felt not only in diminished fertility, but also in the lack of elements essential to healthy plant and animal life. The Government propose to assist farmers in raising the fertility of the soil by increased use of lime. They also consider it desirable to secure increased application, particularly to grasslands, of basic slag which, like lime, is available from home sources, and has an enduring effect upon the soil. They propose that for a limited period of years the cost to the farmer of lime and basic slag should be reduced by approximately 50 per cent. and 25 per cent. respectively. The object of these proposals is not only to make good past exhaustion of soil fertility in many parts of the country, but to build up reserves of fertility, valuable in peace time, and immediately available to meet the heavy demands upon it which might be made in time of war". The question of the application of these proposals to Northern Ireland is at present under consideration.

The second main proposal, which is of considerable interest to Northern Ireland farmers, concerns the initiation of a comprehensive policy for the assistance of cereal growers. So far, as has been shown above, the live stock industry in Northern Ireland has received considerable assistance, but the only measure which has affected grain crops is the Wheat Act. The area under wheat in Northern Ireland is small, and though stimulated by the subsidy, did not exceed, even in 1935 (the year of maximum post-war acreage) 9,067 acres. The bulk of the benefit of this subsidy accrued to farmers in the eastern counties of England. Oats is by far the most important cereal produced in Northern Ireland. In the table below are shown the acreages under wheat, barley and oats, their yields and production in 1935 and 1936 in comparison with the corresponding averages for the years 1926 to 1935.

	Wheat.			Oats.			Barley.		
	Extent	Estimated total production	Average Yield per statute acre	Extent	Estimated total production	Average Yield per statute acre	Extent	Estimated total production	Average Yield per statute acre
	Acres	cwt.	cwt.	Acres	cwt.	cwt.	Acres	cwt.	cwt.
1936 ..	6,871	146,186	21.3	265,042	5,174,871	19.5	2,823	55,678	19.7
1935 ..	9,067	193,932	21.4	272,688	5,203,301	19.1	3,106	63,518	20.4
Average for period 1926 1935	5,527	113,380	20.3	296,974	5,442,141	18.4	1,884	37,098	19.6

It may be seen that in the ten years, 1926 to 1935, the area under oats accounted for 97.5 per cent. of the area under the three cereals put together. A subsidy is now proposed for oat and barley growers, in addition to that which is afforded to wheat growers under the Wheat Act, 1932. As regards oats, a standard price of 8/- per cwt. will be guaranteed to oat growers, and deficiency payments will be made to growers to make up the difference between the actual market price of oats and the standard price. The deficiency payments will not, however, be made on every cwt. of oats marketed. In Northern Ireland, for instance, a very small proportion of the total production of oats is sold on the market. Consequently if the subsidy were paid only on the quantity of oats marketed it would tend to draw on to the market large quantities of oats which would otherwise be consumed on the farm, and the price of oats would be correspondingly depressed. It has thus been decided to pay the subsidy on an acreage basis, the amount per acre being determined by the approximate average quantity of oats sold off farms per acre throughout the United Kingdom. Since this average is roughly 6 cwt. per acre, the amount of subsidy per acre will represent quite simply six times the difference between the average market price and the standard price. In the cereal year 1935/36, the average price of oats in Northern Ireland was 5s. 2d. per cwt., but since September, 1936, the price of oats has increased correspondingly with the general increase in the price of feeding stuffs, and if prices remain at the existing level the amount of subsidy necessary will be fortunately small. Assuming, however, an average price in the first year of the subsidy of 6/- per cwt. Northern Ireland growers will receive, on the 1936 acreage, £160,000.

It should be noted that in accordance with the new cereals' policy, farmers may qualify for subsidy in respect of either wheat or oats and barley. It is anticipated that this provision will encourage farmers to produce the crops for which their land is most suited.

The funds necessary for the oats and barley scheme will be paid out of the Imperial Exchequer.

MARKETING SCHEMES.

AGRICULTURAL MARKETING (PIG INDUSTRY) ACT (N.I.), 1934 :—

PIG PRICES FOR JUNE, 1937.

The following announcement was made by the Pig Industry Council for Northern Ireland.

PRICES FOR DEAD PIGS.

The prices per dead cwt. for dead pigs sold by producers to curers in Northern Ireland in June, 1937, are as follows :—

Weight Class. (Dead Weight).	Grade 1.	Grade 2.	Grade 3.		Partly Black pigs.
c.1.0.21 to c.1.2.3 ..	71/6	68/6	65/6		5/-
Weight Class. (Dead Weight.)	Grade A.	Grade B.	Grade C.	U.L. or U.F.	below relevant Grade Price.
c.1.2.4 to c.1.2.14 ..	71/6	68/6	65/6	62/6	
c.1.2.15 to c.1.3.14 ..	71/6	68/6	65/6	62/6	
c.1.3.15 to c.2.0.0 ..	68/6	65/6	62/6	59/6	
c.2.0.1 to c.2.0.14 ..	62/6	59/6	56/6	53/6	

Pig carcases c.1.0.0 to c.1.0.20 :—60/6.

U.L.—Under Grade A. measurements. U.F.—Over Grade C. measurements.

Authorised cuts :—

(a) Broken ham (dry, shank and/or shell bone break)—5% of the gross value of the carcase.

(b) Broken ham (wet break)—12½% of the gross value of the carcase.

(c) Shoulder-stuck carcase—3/- per shoulder affected.

The gross value of a carcase is the product of the dead weight and the relevant grade or other price per cwt.

Where portion of a pig carcase weighing not less than c.1.0.21 or not more than c.2.0.14 is condemned and the existence of disease could not reasonably have been known to the producer before despatch to the curer the appropriate grade price shall apply. If the carcase is wholly condemned on account of disease, the existence of which could not reasonably have been known to the producer before despatch to the curer, the revelant Grade 2 or Grade B price shall apply.

The foregoing prices do not apply in the case of (a) wholly black pigs, boars, rigs or stags, sucked sows, and pig carcases weighing under c.1.0.0 or over c.2.0.14, and (b) pigs visibly diagnosable as diseased before despatch by the producer and subsequently condemned; emaciated or screw pigs; smelling pig carcases with definite indications of putrefaction, and pig carcases badly abused or damaged before being handed over by the producer to the curer.

Prices for Wiltshire Pigs Sold on Direct Contract.

In the case of pigs sold alive under direct contract to Wiltshire curers the prices per dead cwt. payable for pigs delivered in respect of the month of June, 1937, are as follows:—

Weight Class. (Dead Weight.)	Grade 1.	Grade 2.	Grade 3.	Unsuitable.
c.1 0.0 to c.1.0.20 ..	64/6	64/6	64/6	62/6
c.1.0.21 to c.1.2.3 ..	75/6	72/6	69/6	62/6
c.1.2.4 to c.1.2.7 ..	Grade A. 72/6	Grade B. 69/6	Grade C. 66/6	U.L. or U.F. 63/6
Over c.1.2.7 ..	On the same basis as pigs sold dead.			

Prices for Live Pigs Sold to the Pigs Marketing Board (Northern Ireland).

In the case of pigs sold alive to the Pigs Marketing Board during June, 1937, the prices, according to grade, are as follows:—

Live Weight.	Grade 1.	Grade II.	Grade III.	Unsuitable.
c.1.1.14 to c.1.2.13 ..	48/3	48/3	48/3	46/9
c.1.2.14 to c.2.0.0 ..	56/6	54/3	52/–	46/9
c.2.0.1 to c.2.1.14 ..	53/6	51/3	49/–	46/9
c.2.1.15 to c.2.2.7 ..	51/3	49/–	46/9	44/6
c.2.2.8 to c.2.2.21 ..	46/9	44/6	42/3	40/–

These prices do not apply to live pigs under c.1.1.14 or over c.2.2.21, live pigs intended for breeding, live boars, live sucked sows, rigs or stags, injured or diseased pigs, live in-pig gilts, or live pigs sold (on contract registered with the Pig Industry Council) to curers in Northern Ireland. All other live pigs inside the weights c.1.2.0. to c.2.2.21 can be sold only to the Board.

Authorised Deductions.

Every pig (dead or alive) sold to a curer or to the Pigs Marketing Board is subject to a contribution at present amounting to 1/-.

In addition to this amount, a deduction of 4d. per pig may be made in the case of sales to curers to cover insurance, so that the producer will not suffer financial loss if the carcase is condemned as unfit for human consumption.

In the case of pigs sold to the Board, there is a deduction of 2/6d. per pig for marketing charges.

By virtue of a determination made by the Pig Industry Council, and approved by the Ministry of Agriculture, there are, as and from the 1st June, 1937, no fixed prices for pigs sold dead or alive by producers to curers which weigh less than 1 cwt. dead weight. This limit is equivalent to 1 cwt. 1 qr. 14 lbs. live weight in the case of pigs sold alive to the Pigs Marketing Board (N.I.)

CHANGES IN MEMBERSHIP OF PIG INDUSTRY COUNCIL FOR NORTHERN IRELAND.

(a) Mr. James Johnston, M.P., Fallowfield, Lurgan, has been appointed by the Minister of Agriculture in the room of the late Lt.-Col. J. Patrick, D.L., J.P., Dunminning, Glarryford, County Antrim.

(b) Mr. Thomas Shaw, M.C., N.D.A., Secretary and Manager of the Pigs Marketing Board (Northern Ireland), replaces Mr. Rowley Elliott, M.P., Craigon House, Coagh, County Tyrone, as one of the representatives appointed by the Pigs Marketing Board.

COST OF STANDARD PIG RATION.

The average retail cash price per cwt. of the standard ration for the sixteen weeks' period ended 22nd May, was 10/0½d. This figure has been calculated by the Ministry from returns collected from 10 representative centres in Northern Ireland.

The following is the ration upon which the feeding cost is based:—

Maize Meal	30%
Barley Meal	30%
Pollards (White)	20%
White Bran	10%
Meat Meal (60% Protein)	10%

GRADING STATISTICS.

Table showing the percentages of pig carcases falling within the weight and grade classes indicated during April, 1937.

Under c.1.0.21.		c.1.0.21. to c.1.2.3.				Totals
Suitable	Unsuitable	Grade 1	Grade 2	Grade 3		
2.06	.18	5.47	5.80	5.31	.09	18.91

Grade A.				Grade B.				Grade C.				
1	2	3	4	1	2	3	4	1	2	3	4	
11.88	18.30	2.33	.34	8.63	17.93	3.13	.85	3.52	8.84	1.05	.21	77.01

UNGRADED CARCASES.

Under Grade A measurements. U.L.	Over Grade C measurements. U.F.	Wholly condemned. U1.	Wholly black, injured or damaged. U2.	Overweights, boars, sows, etc. X.	Partly Black. Y.	
.03	2.78	.05	.44	.76	.02	4.08
					Total	100%

These figures have been calculated from the purchase and grading statements which the curers furnish to the Ministry.

The average price paid to producers for pig carcases during the month of April works out at £5 6s. 8d.; the average weight at c.1 2q. 17lb.; and the average price of pork at £3 4s. 7d. per cwt.

The following table gives the percentage results of an analysis of the purchase and grading statements furnished by Wiltshire bacon curers in respect of live pigs delivered on direct contract by producers during the month of April, 1937.

Weight Class.	Grade 1.	Grade 2.	Grade 3.	Unsuitable	Total.
Under c.1.0.21 ...	.03	1.98	—	—	2.01
c.1.0.21 to c.1.2.3	44.53	35.35	11.73	.28	91.89
	Grade A.	Grade B.	Grade C.	U.L. or U.F.	
c.1.2.4 to c.1.2.7 ...	1.27	1.60	.69	.15	3.71
c.1.2.8 to c.1.3.14 ...	.56	1.37	.33	.10	2.36
Over c.1 3.14 ...	—	—	.03	—	.03
Totals ...	46.39	40.30	12.78	.53	100.

The average net price per cwt. in respect of these deliveries works out at £3 9s. 3d., after making allowance for insurance and contribution to the Pigs Marketing Board.

The average weight works out at c.1.1.15, the net average price per pig being £4 15s. 9d.

THE CATTLE INDUSTRY (EMERGENCY PROVISIONS) ACTS, 1934 AND 1935.

According to returns just received from the Cattle Committee, the total amount paid to Northern Ireland owners by way of cattle subsidy up to and including the 5th June, was £711,100 9s. 0d., and these payments were in respect of 340,508 animals, representing an average payment for each animal of £2 1s. 9d.

The following table shows the numbers of Northern Ireland cattle certified for the subsidy during the winter months of December, January and February for the past three years :—

Month.	Steers.	Heifers.	Cow Heifers.	Total.
December, 1936	6,393	2,498	257	9,148
,, 1935	7,909	3,293	235	11,437
,, 1934	3,919	1,949	194	6,062
January, 1937	8,988	3,119	276	12,383
,, 1936	10,027	3,523	244	13,794
,, 1935	8,043	2,937	250	11,230
February, 1937	9,210	2,863	236	12,309
,, 1936	10,200	3,289	306	13,795
,, 1935	7,550	2,252	288	10,090
Total for quarter 1937	24,591	8,480	769	33,840
1936	28,136	10,105	785	39,026
1935	19,512	7,138	732	27,382

The subsequent tables show (1) the average prices per live cwt., and (2) the average live weights of the cattle in respect of which payments have been made by the Committee to Northern Ireland owners during the periods mentioned.

(1) PRICES.

NORTHERN IRELAND.

	1937		1936		1935		1934	
	s.	d.	s.	d.	s.	d.	s.	d.
January ..	33	1	30	9	31	3	——	
February ..	33	3	31	11	30	10	——	
March ..	34	4	32	4	29	10	——	
April ..	37	10	31	11	29	8	——	
May ..	——		33	1	30	11	——	
June ..	——		35	4	32	4	——	
July ..	——		34	1	31	11	——	
August ..	——		34	7	31	0	——	
September ..	——		32	4	29	4	33	7
October ..	——		30	10	28	2	31	3
November ..	——		29	10	27	7	30	1
December ..	——		31	5	28	10	30	10
Average ..	——		32	4	30	2	——	

(2) WEIGHTS.

NOTE.—The average weights given in the following table are calculated from the nett weights on which payments have been made. The average weights of the cattle as weighed at the Centres would be 28 lb. heavier in each case.

NORTHERN IRELAND.

	1937			1936			1935			1934		
	c.	qr.	lb.	c.	qr.	lb.	c.	qr.	lb.	c.	qr.	lb.
January ..	8	2	8	8	2	4	8	2	20		——	
February ..	8	1	17	8	1	14	8	2	13		——	
March ..	8	1	6	8	0	26	8	1	23		——	
April ..	8	0	25	8	0	19	8	1	20		——	
May ..		——		8	0	5	8	1	2		——	
June ..		——		8	0	1	8	0	26		——	
July ..		——		8	0	9	8	1	4		——	
August ..		——		8	0	25	8	1	6		——	
September ..		——		8	0	22	8	1	16	8	2	15
October ..		——		8	1	15	8	1	20	8	2	9
November ..		——		8	1	17	8	1	20	8	2	13
December ..		——		8	1	27	8	1	22	8	2	13
Average ..		——		8	1	1	8	1	18		——	

LIVESTOCK INDUSTRY BILL.

The Livestock Industry Bill has now passed through all its stages in the House of Commons, and is being considered by the House of Lords. As soon as the Bill receives the Royal Assent, the Livestock Commission will be appointed and the day fixed for the change over from the old to the new subsidy scheme.

It is with the subsidy part of the Bill that Northern Ireland producers are chiefly concerned, and they should note that on and after the appointed day (which will probably fall at or about the end of July) payment in respect of all animals certified will be at the revised rates, namely :—

ORDINARY SUBSIDY :

Home-bred animals, 5s. per cwt. live weight.
Imported animals, 2s. 6d. per cwt. live weight.

QUALITY SUBSIDY :

Home-bred animals, 7s. 6d. per cwt. live weight.
Imported animals, 5s. per cwt. live weight.

These new rates are subject to confirmation by the Livestock Commission, and may be revised by them from time to time. The new policy is obviously designed to encourage the production in increasing numbers of home-bred cattle of good quality. In future it is the home-bred animal, whether store or fat, that should command the best price. This directs attention at once to the importance of the best heifers being kept for breeding purposes instead of being sent to the butcher because of the attraction of the subsidy. On this point farmers should, in their own interests, read the Ministry's recently published circular No. 14, obtainable free of charge on request, which sets out the many reasons against the unwise practice of killing off good breeding heifers.

AGRICULTURAL NOTES.

SEASONAL FARM NOTES.

Weeds.—After the sowing of the turnip crop has been completed and before hay harvesting commences, there is generally a slack period on most farms which affords a convenient opportunity for destroying weeds. Weeds reduce crop yields, depreciate the quality and value of crops and add to the cost of production. The timely destruction of weeds is, therefore, a duty which no farmer can afford to neglect. Moreover, under the Weeds' Act it is an offence to allow weeds, such as thistle, dock, ragwort ("ragweed" or "benweed") and ox-eye daisy or "dog" daisy to grow until after the seeding stage has been reached.

Thistles and docks growing in fields of oats, barley, and flax should be pulled or spudded out before the growth of the crop is too far advanced for such work. The destruction of these weeds now will save considerable time and inconvenience at harvest, in addition to reducing the numbers of such weeds in subsequent years.

It is not yet too late in some districts to spray crops of oats and flax which are infested with charlock ("preshaugh"). This is one of the worst weeds of arable land and too often it is allowed to grow and seed unchecked. It can be most conveniently destroyed by spraying with a solution of copper sulphate as recommended in last month's Report. Full particulars regarding the destruction of charlock are also given in Leaflet No. 38.

Weeds growing on pasture land should be cut early in the season so that seeding is prevented. Many farmers object to cutting weeds early, on the grounds that a second cutting later is necessary and additional labour is, accordingly, required. It should be noted, however, that delay in destroying weeds may lead to many of the weeds seeding and result in increased infestations in future years. Moreover, cutting twice or more during the growing season so weakens the plants that many of them die off and the work of keeping weeds in check is thus considerably reduced in future years.

The destruction of weeds growing on waste places, stackyards, ditch backs, etc., is particularly important in any campaign to rid a farm of weeds, as such places are sources of re-infestation if not cleared of weeds.

Potatoes.—Crops of potatoes should be frequently hoed and moulded, until the haulms or "tops" cover the ground. These operations, besides aiding in keeping the land free from weeds are also beneficial in promoting the growth of the crop and in obtaining satisfactory yields.

Potato Spraying.—As potatoes were late in being planted in many districts this season, particular attention should be given to the spraying of the crop so that the plants may not be cut down by blight disease before growth is complete. As spraying is a preventive of blight, not a remedy, it is essential to apply the first spraying *before* any signs of disease are apparent on the potato foliage. It is, therefore, a wise precaution to obtain supplies of spraying materials, such as copper sulphate and washing soda, early in the season, so that there may be no delay in spraying the crop when the time for application arrives. In normal seasons, the first spraying should be carried out not later than the first week of July, and the second and third applications given at fortnightly intervals afterwards. Information relating to the preparation and application of the spray mixtures are given in Leaflet No. 50.

The need for spraying early varieties, particularly those from which seed is to be saved, may be emphasised. Spraying not only aids in obtaining greater yields, but also decreases the proportion of diseased tubers, and the outlay involved in carrying out the work will be well repaid by the increased value of the crop.

"Rogueing" of Crops.—Crops grown from selected stocks of potatoes should be specially examined now and any plants showing signs of diseases, such as leaf roll and mosaic, removed. The presence of these diseases in growing crops can be detected most readily when the plants are comparatively young. Leaf roll can be easily recognised, as the plants have a stunted appearance, the margins of the lower leaves roll inwards, the tips of the leaflets turn brown, and the leaflets on the lower leaves become thickened and brittle, and make a peculiar rattle when moved. Rolling of the top leaves on a plant is not a certain indication of leaf roll disease. The leaflets of plants affected with mosaic disease have a wrinkled appearance and variegated colour, besides being reduced in size. Further particulars of these diseases and of their effect on crop yields are given in Leaflet No. 73.

Inspection of Crops.—Inspections of growing crops of potatoes for the Ministry's Purity Certificates will again be carried out this summer, and growers who desire to have their crops inspected should make application to the Ministry, or to the local Potato Inspector, before the end of June. Further particulars regarding this inspection are given on page 95.

Hay.—In most districts good growth has been made by the hay crop this season, and, accordingly, harvesting should commence towards the end of June if weather conditions are suitable. It is a great mistake to allow hay not intended for seeding to become over-ripe before cutting. Over-ripe hay is much inferior in feeding value to that which is cut early in the season, and the

superior quality and higher feeding value of unripe hay more than make up for any slight reduction in yield which may result from early cutting. The mower and other hay harvesting machinery should be overhauled now and put into proper order in readiness for the work, so that possible breakdowns during the busy period may be avoided.

PASTURE.—Grassland, particularly that which has been manured during the past winter, should be kept closely grazed from now onwards. Fresh, young grass possesses greater feeding value and is more palatable to stock than that which is allowed to grow and run to seed, and the full benefits from manuring will not be obtained unless close grazing with mixed stock is practised. Where there is a tendency for the grass to run to seed, a run of the mower over the field will be of considerable benefit. This cutting as well as destroying weeds, will encourage fresh bottom growth.

SEASONAL LIVESTOCK NOTES.

PIG FEEDING.—The attention of pig keepers is again directed to the care necessary in the making up of rations for use during the fattening stages in order that the feeding will aid in the production of bacon of good quality. The increased cost of feeding stuffs has added materially to the costs of pig production, but it is foolish economy to reduce production costs by the use of cheap and unsuitable foods in rations which will affect the quality of the bacon produced. In particular, the excessive use of maize meal, which is lower in price than other feeding stuffs, should be guarded against. Maize meal, when fed to excess, tends to produce bacon of a soft, oily type and of inferior quality. Not more than 40 per cent. (4 parts in 10) of maize meal, or other maize products, should be included in the ration. The use of excessive quantities of pollards may also have an adverse affect on bacon quality, and should be avoided; while foods, such as fish meal, meat meal of high oil content, linseed cake meal, rice meal, maize germ meal and cod liver oil should NOT be included in meal mixtures for fattening pigs as such foods are likely to produce soft, oily bacon with undesirable taints after curing. The following meal mixture for fattening pigs has given satisfactory results both from the point of view of bacon quality and live weight gains:—

3 parts by weight Maize Meal
3 ,, ,, ,, Barley Meal
2 ,, ,, ,, Pollard
1 part ,, ,, Bran
1 ,, ,, ,, Meat Meal or Extracted Soya Bean Meal.

A mineral mixture, consisting of 3 parts by weight ground limestone and 1 part by weight common salt, should be fed at the rate of 1lb. per cwt. of meal

mixture where meat meal is used, and at the rate of 2lb. per cwt. of meal mixture if soya bean meal is used. Further examples of suitable meal mixtures for fattening pigs are given in Leaflet No. 35.

Management and Feeding of Young Pigs.—Sows and young pigs should be allowed out as much as possible during the summer months on fresh, clean pasture. A daily run out promotes good thriving in the young pigs and aids in the prevention of ailments, such as anaemia and scour.

When the pigs are about one month old they should be encouraged to eat. A satisfactory method of doing so is to provide a "creep" in the farrowing pen. This can be done by placing a small shallow trough or hopper at one side of the pen, and railing it off, so that the sow cannot reach it, but leaving the bottom rail of the barrier sufficiently high to permit the young pigs to walk underneath. A meal mixture, such as equal parts bran, pollard and flaked maize, wet with separated milk, is suitable for young pigs at this stage. Further hints on the rearing and management of pigs are given in Leaflet No. 45.

Calf Rearing.—Calves should be encouraged to eat a small allowance of meals after they have reached the age of 4 weeks. At this age, separated milk, where supplies are plentiful, can be gradually introduced to replace whole milk, and crushed oats alone, or a mixture of crushed oats and maize meal in equal parts, given at the rate of about ¼lb. per calf daily. On farms where supplies of separated milk are limited or are not available, the rearing of calves is rendered more difficult, but experiments have shown that it is possible to raise good calves in such circumstances. Full particulars of the methods and meal mixtures recommended in these circumstances are given in the revised edition of Leaflet No. 54, supplies of which are now available.

Sheep Dipping.—Sheep owners are reminded of the double-dipping period, which extends from the 28th June to the 28th August. During that period all sheep must be dipped on two occasions, allowing an interval of not less than 7 or more than 14 days between the two dippings.

As serious consequences may result if sheep which have been driven to the dipping centre are dipped immediately after they arrive there and while still overheated, sheep owners are strongly advised to see that in all cases the sheep are rested for a period of from half-an-hour to an hour before being dipped, and that dipping does not begin before the sheep have had time to cool to the normal temperature. During this period of resting, the sheep should not be penned closely together but given adequate room to recover from the effects of the journey. A short rest after dipping is completed and before the start of the homeward journey is also advisable.

Sheep-Maggot Fly.—A careful watch should be kept at this time for attacks of the sheep-maggot fly, especially during periods of damp, sultry weather. If attacks occur, the maggots should be rubbed out, using carbolic sheep dip to assist in dislodging the pests. Sores should be dressed finally with an ointment made up of powdered sulphur mixed with either fresh lard or with linseed oil.

SEASONAL GARDEN AND ORCHARD NOTES.

Spraying of Apple Trees.—The fourth application of Bordeaux mixture to prevent apple scab disease should be given to apple trees about three weeks after the petals have fallen and a fifth application may be made a fortnight after the fourth. Half-strength mixture, that is 1 lb. bluestone, 4½ lb. hydrated lime (or 8 lb. lime putty) and 40 gallons of water, should be used for these later sprayings. Trees of the varieties Grenadier, Royal Codlin, Royal Jubilee and those of most of the dessert varieties should not be sprayed with Bordeaux mixture after flowering as it causes russetting of the fruit, if applied then.

Vegetables.—The planting out of broccoli, savoys, cabbage, etc., should be completed as soon as possible. The ground between the growing plants should be frequently hoed to promote steady growth and to keep down weeds. In late districts, a sowing of cabbage seed should be made about 10th July in order to get plants for planting out in September. Small successive sowings of lettuce and garden turnips should be made to keep up supplies for later summer use. Particulars of vegetable growing are given in Leaflet No. 67.

"Finger-and-Toe" Disease.—Where this disease of cabbage and of other members of that family is present in the soil, the ground around each plant should be treated with a solution of mercuric chloride (corrosive sublimate) to prevent the disease. The solution is prepared by dissolving one ounce of mercuric chloride in a small quantity of hot water and making up to 10 gallons with cold water. About half a pint of the solution should be poured on the soil around each plant after planting out. This treatment usually ensures that a satisfactory crop can be produced even on infected ground. It does not, however, eradicate the disease. If infected ground is given a dressing of lime at the rate of 2 to 3 tons per acre, it will reduce the infection in subsequent crops. Where members of the cabbage crop have to be grown annually, as in gardens, a small dressing of lime should be applied to the ground each year until the disease disappears.

Cabbage Root-Fly.—This pest, which attacks all members of the cabbage family but especially cauliflowers, can also be controlled by the use of

mercuric chloride solution, but in this case two applications of the solution are necessary. Each plant should be "watered" with half a pint of the solution about four days after planting out and a further application made in about fourteen days' time. As this pest causes considerable damage, especially in districts where cauliflower, brussel sprouts, etc., are regularly grown, e.g. gardens around towns, it is advisable to use the material as a precaution against attack.

Mercuric chloride is extremely poisonous and the greatest care is necessary in its use. The solution should be prepared in earthenware vessels and applied with a cup or glass. The solution should not be left where stock of any kind have access to it, and all the vessels used should be thoroughly washed or destroyed. If washed, the washing water should not be thrown out where the stock may drink it.

Slugs.—A very successful preparation for the destruction of these pests consists of two tablets of "Meta" ground to a fine powder and mixed with one pint of bran. This mixture should then be sprinkled on the ground among the plants being attacked. Little heaps of the bait should also be placed here and there among the plants and covered with a piece of slate or board. "Meta" can be obtained from chemists or druggists, a six-penny packet contains ten tablets.

Celery.—As advised in last month's notes, celery should get liberal supplies of water after planting out and may, in addition, be given a dressing of liquid manure, or a mixture of artificial manure, such as 1½ oz. superphosphate, ½ oz. sulphate of ammonia or nitrate of soda and ½ oz. sulphate of potash per square yard. The manure should not be applied during dry weather unless the plants have been given liberal quantities of water previously. As soon as the plants have commenced to grow freely, they should be sprayed at from 10 to 14-day intervals with half strength Burgundy mixture, i.e. 1 lb. bluestone, 1¼ lb. washing soda in 10 gallons of water, to prevent celery leaf-blight disease. If the grubs of the celery leaf fly become troublesome, they can be controlled by adding 2 oz. nicotine sulphate to the 10 gallons of Burgundy mixture. These pests eat the tissue of the leaves between the upper and lower surfaces producing blister-like patches.

Peas.—The last sowing for this year should be made before the middle of this month. Plants from previous sowings should be staked as soon as they are ready and kept growing rapidly.

General.—One of the most important duties at this period of the year is to keep the surface soil loose and so conserve moisture and keep down weeds. Staking of plants that need support is also a very important item and should be completed before the plants show signs of hanging down, as otherwise there is a grave risk of them being broken by wind.

SEASONAL POULTRY-KEEPING NOTES.

Disinfection and Storing of Rearing Appliances.—When hatching for the season is completed, all incubators and rearing appliances not in use should be thoroughly cleaned and disinfected before being stored away. A disinfectant, such as Jeyes' Fluid (one part in twenty parts water), is useful for such purposes and can be readily applied with a brush, or as a spray. Fumigation with formaldehyde gas, in addition to cleaning and disinfection, should also be carried out, particularly where outbreaks of disease have occurred. Particulars regarding fumigation of incubators and other appliances are given in Leaflet No. 59.

Care of Poultry Houses.—This is a convenient time to carry out the cleaning and limewashing of poultry houses. Houses which are thoroughly cleaned out and limewashed will be brighter and healthier for the birds, while infestations of parasites, such as red mites and lice, which frequently prove troublesome during the summer months, will be considerably reduced. If red mites are found in the house, paraffin should be added to the limewash at the rate of about ½ pint to each gallon of wash. Lice can be conveniently destroyed by painting the upper surfaces of the perches with nicotine sulphate just before the birds go to roost in the evening. Nicotine sulphate can be obtained from any chemist. It should be noted that these pests are frequently responsible for outbreaks of feather picking, particularly in young growing birds. It is, therefore, a wise plan to examine the houses and birds periodically and if these pests are found, steps should be taken immediately to destroy them. Infestations of red mites and of lice will hinder the growth and development of young stock.

Management and Feeding of Pullets.—The importance of good management and correct feeding of the young growing pullets is again brought to the attention of poultry keepers. Egg production next winter will be greatly influenced by the treatment given the pullets during the developing stage, and no effort should be spared in giving them every opportunity of growing naturally into strong robust birds which will be able to withstand the strain of sustained egg production later.

Ample range and adequate housing accommodation are essential for full development of body and vigour. Slatted-floor houses on free range are ideal, and the birds should be kept continuously on fresh, clean pasture by moving the houses frequently. Overcrowding in badly ventilated houses should be rigidly avoided, as this is the most frequent cause of the appearance of the unthrifty type of bird. Where housing accommodation is limited, the pullets should get first preference. The culling out and disposal of unthrifty birds and all cockerels ready for sale and which are not being kept for breeding purposes will assist in providing more house room, as well as being a sound economic proposition.

Feeding should be carefully regulated so that the birds are not unduly forced into premature maturity. The feeding should consist largely of body building foods, such as bran and pollards, while forcing, protein-rich foods, such as milk, fish meal, meat meal and soya bean meal should be reduced in the mash, or omitted altogether, if the birds are developing at a too-rapid rate. The birds should be encouraged to build up large frames and bodily reserves rather than to commence laying eggs before they are in a fit condition to do so.

Provision of Shade.—During hot weather, poultry should be allowed access to places where they will obtain protection from the sun. If there is no natural shade available, such as trees, shrubs, hedges, etc., a roughly prepared shelter, made of branches and covered with bags, rushes or straw, should be provided.

Water Supply.—An ample supply of fresh, clean water for poultry is particularly important during the summer months; an inadequate supply may cause a serious drop in egg production in the case of the laying flock, especially during hot weather. The water should be renewed twice daily and the vessels containing it placed in a cool spot, protected from the sun.

Poultry Runs.—Grass on poultry runs should be kept short by periodical mowings. Mowing frequently during the summer months encourages the growth of fresh, young, palatable grass which will be readily consumed by the birds. If sheep are available, a few can be run in the pens with advantage. They will keep the grass in good order and will reduce the amount of mowing necessary.

Care of Eggs.—The importance of marketing fresh, clean, infertile eggs which will reach the consumer in good condition may again be pointed out. Male birds should be removed from the laying flock and kept in isolation or sold off. The eggs should be collected from the nests frequently, at least twice daily, at mid-day and again in the evening, stored in the coolest room available and marketed regularly. On no account should broody hens be allowed to sit on nests, as if this is done the quality of the eggs for marketing will be seriously impaired. Immediately hens are noticed becoming broody, they should be placed in airy coops and fed well so that they may soon come into production again. Further hints on the proper care and marketing of eggs are given in Leaflets 27 and 57, and in Talks to Producers, number 39.

Rearing of Turkeys.—For the successful rearing of turkeys, free range on fresh, clean pasture is necessary. Rearing on fresh ground each year aids in the prevention of outbreaks of diseases, such as blackhead, gapes,

etc., and promotes the growth of the birds. During the early stages turkey chicks should be protected from rain and not allowed to range through long, wet grass, otherwise losses may occur. This is specially important until they have got the red heads at about 8 weeks old. Information relating to the feeding and management of young turkeys is given in Leaflet No. 37.

ANNOUNCEMENTS AND REMINDERS.

GENERAL.

Schools.—The next session at the Ulster Dairy School, Cookstown, and at the North-West School, Strabane, begins on the 20th July. Applications for the free scholarships, offered by County Committees of Agriculture to the North-West School, should be made by intending pupils to the Secretary, Committee of Agriculture for the County, without delay. Applications for admission to the Ulster Dairy School should also be made immediately to the Ministry. There is no qualifying examination for admission to either of these Schools. Prospectuses of both Schools can be obtained from the Ministry free, on request.

Greenmount Agricultural and Horticultural College.—Applications for the scholarships to this College, offered by the County Committees of Agriculture, should be made to the Secretary, County Committee of Agriculture, before the 31st July next. Further particulars regarding the course of instruction provided are given on page 93 of this Report and in the prospectuses which can be obtained from the Ministry free, on request.

Inspection of Growing Crops of Potatoes.—Farmers desiring to have crops of potatoes inspected for purity certificates should make application to the Ministry, or to the local Potato Inspector, before the end of June. Unless applications are received in good time, no assurance can be given that the crops will be inspected. Inspections are carried out free of charge and the possession of a certificate is of distinct advantage where the produce of the crop is sold for seed purposes.

Weeds.—Destroy noxious weeds (thistle, dock, ragwort, and ox-eye daisy) early and reduce infestations of these weeds in future years. Inspections by the Police, in connection with the destruction of these weeds, will commence shortly.

Sheep Dipping.—The summer sheep dipping period has been altered this year and commences on the 28th June and ends on the 28th August. All sheep must be dipped twice during that period, allowing an interval of not less than 7 nor more than 14 days between the two dippings.

Apple Orchard Competitions.—These competitions will be conducted again this year by the Ulster Horticultural Society. Entries should be forwarded not later than the 15th July to the Secretary of the Society, Mr. R. M'Cann, 39 Textile Buildings, 9 Donegall Square South, Belfast, from whom further particulars can be obtained.

Blood-Testing of Poultry.—Poultry-keepers who desire to have birds blood-tested for Bacillary White Diarrhoea disease should make application to the Instructor in Poultry-keeping for the district as soon as possible and not later than the 1st August next. Applications received after that date cannot be dealt with until blood-testing for previous applicants has been carried out. Copies of the Scheme, which gives full particulars regarding the conditions under which testing is carried out, fees, etc., and of the prescribed form of application, may be obtained free from the Ministry, on request.

Accredited Poultry Farms.—A register of Accredited poultry farms will again be issued this autumn. Copies of the conditions and application forms may be obtained from the Ministry free, on request.

Laying Test at Stormont.—The next laying test at Stormont will begin on the 1st October, 1937, and entries should be made not later than the 1st September next. Copies of the rules of the test will be available soon.

Licensing of Bulls.—All bulls born in July, August, September, October, November and December, 1936, must be licensed by the 30th September next. Applications for licences must reach the Ministry not later than the 31st July. Application forms may be obtained at any Police Barracks or direct from the Ministry.

Butter-Making Class.—A class in butter-making, arranged by the County Down Committee of Agriculture, is being held in St. Mary's Hall, Burren, Warrenpoint. This class commenced on Thursday, 3rd June, and meets on several afternoons each week at 3 p.m. It will be continued for a period of at least three weeks.

SCHOLARSHIPS TO GREENMOUNT AGRICULTURAL AND HORTICULTURAL COLLEGE, 1937-38.

Each County Committee of Agriculture in Northern Ireland offers for competition this year Scholarships in Agriculture and Horticulture, tenable at Greenmount Agricultural and Horticultural College, Muckamore, County Antrim, for the session 1937-38. An attractive opportunity is thus offered to farmers' sons in Northern Ireland to secure a sound training in technical

Agriculture or Horticulture through the medium of these Scholarships, which entitle the holders to free tuition, board and residence.

Greenmount College is situated about one mile from Antrim, in a good agricultural district, and amidst pleasant surroundings. Classrooms, laboratories, etc., are set apart for the different subjects in which indoor instruction is given, and these are fully equipped with the necessary apparatus. The farm attached to the College extends to over 240 acres, and besides the instruction provided in practical agriculture and the experience obtained in the running of the farm, the students also receive practical instruction in poultry husbandry, dairying, veterinary hygiene, woodwork, vegetable growing, fruit cultivation and bee-keeping.

The course is primarily intended to give students a sound knowledge of agriculture or horticulture, and of the sciences relating thereto, such as will be of use to them in their future careers. It also provides an excellent preparation for students desirous of competing for University Scholarships in agricultural science, which are offered each year by the Ministry of Agriculture.

Intending candidates should communicate immediately with the Secretary (or Agricultural Organiser) of the County Committee of Agriculture for the county in which they reside, from whom the prescribed form of application may be obtained. The completed form of application must be sent to the Secretary or Organiser so as to reach him before the 31st July, 1937.

SCHOLARSHIPS IN AGRICULTURAL SCIENCE.

The attention of the public in Northern Ireland is directed to the offer by the Ministry of Agriculture of not more than six valuable Scholarships in Agricultural Science for competition in the autumn of this year among young men in Northern Ireland. Each Scholarship is of the value of £95 per annum, and is tenable for four years in the Faculty of Agriculture of Queen's University, Belfast. Successful candidates are afforded an opportunity of securing advanced training in Agricultural Science, and of obtaining, on conclusion of their course, the Degree of Bachelor of Agriculture. Candidates must be between the ages of 17 and 30 on the 15th November, 1937, and must have passed the Matriculation Examination of the Queen's University, or its accepted equivalent. Eligible applicants will be submitted to an examination, the object of which will be to test their knowledge of practical Agriculture, or their knowledge of Elementary Science applied to Agriculture.

In addition to the Ministry's Scholarships one similar Scholarship is being offered by the Royal Dublin Society under the terms of the Anne Hall Endowment. Competition for the Society's Scholarship will, however, be restricted

to applicants from the Counties of Londonderry and Fermanagh. Candidates from these counties should use the application form provided by the Ministry of Agriculture, and they will be regarded as applying both for a Ministry's and the Society's Scholarships. The examination for all the above-mentioned Scholarships will be held on the same date and at the same place.

For more detailed particulars regarding these valuable Scholarships those interested should communicate with the Secretary, Ministry of Agriculture, Stormont, Belfast.

THE MINISTRY'S JOURNAL.

The Faculty of Agriculture, Queen's University, which works in close co-operation with the Ministry of Agriculture, is engaged upon research into various questions affecting the health of farm stock, the most economical methods of feeding, the control of crop diseases and pests, and the methods of husbandry most suited to improve the general cropping and disease resisting qualities of crops, etc.

The experiments and enquiries connected with these problems are carried out over a number of years in order that the final results may be proved and the research workers satisfied that their conclusions are reliable, before they are issued to the farming community. These results are published periodically in simple and non-technical language in the Journal of the Ministry of Agriculture.

The last volume published (Vol. 5) contains the results of experiments connected with pig feeding, the grading of pigs, new strains of grasses, the control of the carrot fly in Northern Ireland, a method of determining the manurial content of soils, investigations into the keeping quality and shell strength of eggs and the ingredients of the ration of laying hens. The Rt. Hon. Sir Basil Brooke, Bart., Minister of Agriculture, has contributed a foreword, in which he draws attention to the close connection which now exists between research and policy.

Copies of any of the Journals may be obtained, price 2/6d., from any bookseller, or direct from His Majesty's Stationery Office, 80 Chichester Street, Belfast, (price 2/9d. post free).

INSPECTION OF GROWING CROPS OF POTATOES.

For the export market it is now imperative that seed potatoes should be certified by the Ministry as being the produce of pure and healthy crops. Arrangements have, therefore, again been made this year whereby growers of potatoes can have their crops inspected for purity and freedom from virus

diseases (Leaf Roll and Mosaic). Growers are, therefore, urged to avail themselves of this scheme and thus be in a position to meet market requirements and comply with the regulations dealing with the export of seed potatoes.

These regulations include the following provisions:—

(1) All bags of potatoes must be clearly branded with the name of the variety or, alternatively, must be branded "mixed varieties".

(2) Seed potatoes for export in packages branded with the name of variety must be the produce of certified crops of a purity of not less than 97%.

Further, each consignment of seed potatoes of a named variety delivered to a merchant for the purpose of this export trade is required to be accompanied by a written guarantee (on Form B.S. 37) from the producer that the potatoes are the produce of a crop certified by the Ministry. In the guarantee the number of the crop certificate issued by the Ministry must be stated.

In view of the Potato Marketing Scheme which is now in operation, it may be pointed out that the advantages of producing pure stocks of potatoes are not limited merely to the seed potato trade. It is also a matter of vital importance for the ware trade, for if ware potatoes are to be accepted in Cross-Channel Markets they should not be composed of mixed varieties, and they should be supplied true to the name of the variety under which they are sold.

Crops of the varieties Black Skerry, Arran Chief and President, will not be inspected.

No charge is made for inspection of crops or for certificates.

Application for the inspection of crops should be made before the end of June on the prescribed forms, which may be had from the Secretary, Ministry of Agriculture, Stormont, Belfast, or from the local Police Barracks.

SCHEME FOR THE BLOOD TESTING OF POULTRY FOR BACILLARY WHITE DIARRHOEA.

Poultry-keepers who desire to have birds blood-tested are reminded that early application should be made to the Instructor in Poultry-keeping for their county or district, and, in any case, not later than the 1st August next. Applications received after that date cannot receive the Instructor's attention until all previous applications have been dealt with. Copies of the Scheme, which gives full particulars regarding the conditions under which testing is carried out, fees, etc., and of the prescribed form of application, may be obtained

from the Secretary, Ministry of Agriculture, Stormont, Belfast, or from the Instructor. The following is a list of the names and addresses of the Instructors in Poultry-keeping :—

COUNTY.	NAME AND ADDRESS.
Antrim (North) ..	Miss A. M. Nedwill, c/o The Secretary, County Antrim Committee of Agriculture, County Courthouse, Belfast.
Do. (South ..	,, R. E. Dick, c/o The Secretary, County Antrim Committee of Agriculture, County Courthouse, Belfast.
Armagh	Miss A. G. English, c/o The Agricultural Organiser, County Armagh Committee of Agriculture, Russell Street, Armagh.
Down (Mid) ..	Miss L. Walters, c/o The Agricultural Organiser, County Down Committee of Agriculture, Northern Bank Chambers, May Street, Belfast.
Do. (South) ..	,, W. McMullan, c/o The Agricultural Organiser, County Down Committee of Agriculture, Northern Bank Chambers, May Street, Belfast.
Do. (North) ..	,, E. F. Anderson, c/o The Agricultural Organiser, County Down Committee of Agriculture, Northern Bank Chambers, May Street, Belfast.
Fermanagh ..	Miss A. M. Callery, c/o The Secretary, County Fermanagh Committee of Agriculture, Courthouse, Enniskillen.
Londonderry (North)	Miss E. McCluggage, c/o The Secretary, County Londonderry Committee of Agriculture, Courthouse, Coleraine.
Do. (South)	,, M. Allison, c/o The Secretary, County Londonderry Committee of Agriculture, Courthouse, Coleraine.
Tyrone (North) ..	Miss M. H. Davidson, c/o The Secretary, Co. Tyrone Committee of Agriculture, Courthouse, Omagh.
Do. (South) ..	,, M. C. J. Davidson, c/o The Secretary, Co. Tyrone Committee of Agriculture, Courthouse, Omagh.

FIFTEENTH EGG-LAYING TEST AT STORMONT.

RESULTS TO THE END OF THE NINTH PERIOD.

The ninth four-weekly period ended on the 10th June, 1937, and particulars of the leading pens in the different sections as at that date are given in the table hereunder.

There was a decrease in egg-production during the period, due to broodiness. The average, based on the 864 pullets originally penned, was 16.7 eggs per bird, as compared with a similar average of 19.1 for the previous period, and with 19.7 for the seventh period. The total number of eggs laid during the ninth period was 14,458; of this number, 13,200, or 91.7 per cent. were scoring eggs, i.e., 2 oz. or over in weight.

The highest sectional average egg-production for the period is to the credit of the Rhode Island Reds in Section 3, the average being 18.4 eggs per bird; the Rhode Island Reds in Section 5 (c) being next with an average of 18.2 eggs per bird.

The flock average egg-production, on the basis of the 864 birds originally penned, is 144.0 eggs per bird in the 36 weeks the test has been in progress.

Eight birds died during the period, bringing the total number of deaths to the end of the ninth period to 47. This represents a mortality rate over the 36 weeks of 5.4 per cent. as compared with a rate of 6.8 per cent. during the same period of the previous test.

SECTION 1. WHITE WYANDOTTES (OPEN). 28 pens.

Position.	No. of pen.	Name and Address of Owner.	No. of eggs laid during 36 weeks. Super Grade	1st Grade	2nd Grade	Below 2nd Grade	Score Value
1	22	Mr. J. C. Stewart, Balloo, Killinchy, Co. Down.	819	253	38	4	1,072
2	3	Mrs. J. M. Brogden, Fernshaw, Dungannon, Co. Tyrone.	612	387	120	3	999
3	10	Mrs. D. C. Gamble, Roan Lodge, Coalisland, Co. Tyrone.	630	368	22	1	998
4	4	Mr. R. A. Copeland, Blackscull, Dromore, Co. Down.	572	388	82	3	960
5	5	Mrs. H. G. Darley, Trory, Ballinamallard, Co. Fermanagh.	485	461	57	2	946

SECTION 2. WHITE LEGHORNS (OPEN). 13 pens.

1	33	Mrs. E. Johnston, Craigboy, Donaghadee, Co. Down.	762	163	19	—	925
2	39	Mr. J. Waugh, Ballyrickard, Kilwaughter, Larne, Co. Antrim.	543	361	33	3	904
3	35	Mr. W. D. Anderson, Ballyaugherty, Saintfield, Co. Down.	485	379	16	—	864

SECTION 3. RHODE ISLAND REDS (OPEN). 31 pens.

1	53	Miss J. A. Irwin, Mount Irwin, Tynan, Co. Armagh.	612	481	29	—	1,093
2	64	Mr. H. Ramsey, Sylvan Cottage, Gilnahirk, Belfast.	317	636	105	—	953
3	62	Mrs. D. Patterson, Ballycastle Road, Coleraine, Co. Londonderry.	449	479	170	6	928
4	60	Mr. R. J. O'Hanlon, Violet Cottage, Unshinagh, Portadown, Co. Armagh.	553	357	59	1	910
5	63	Mr. W. Patton, The Hill, Loughries, Newtownards, Co. Down.	631	268	29	—	899

SECTION 4. ANY OTHER PURE BREED (OPEN). 16 pens.

Position.	No. of pen.	Name and Address of Owner.	No. of eggs laid during 36 weeks. Super Grade	1st Grade	2nd Grade	Below 2nd Grade	Score Value
1	75	Mrs. M. Finlay, Langfield, Armoy, Co. Antrim. (Light Sussex.)	525	355	187	—	880
2	76	Mrs. H. Getty, Hillcrest, Newtownards Co. Down. (Light Sussex)	343	530	102	2	873
3	86	Mr. R. Holmes, Moneycarrie, Killykergan, Coleraine, Co. Londonderry. (Buff Rocks)	323	504	154	11	827

SECTION 5 (*a*). WHITE WYANDOTTES (STATION HOLDERS). 14 pens.

1	93	Mr. C. E. Crooke, The Rocks, Blaney, Enniskillen, Co. Fermanagh.	464	598	119	4	1,062
2	99	Mrs. M. Rodgers, Ballyginney, Dundrum, Co. Down.	692	294	65	2	986
3	91	Mr. W. A. Bell, Donaghanie, Beragh, Co. Tyrone.	465	512	124	3	977
4	95	Miss M. M'Allister, Turnpike House, Backnamullagh, Dromore, Co. Down.	346	592	152	3	938

SECTION 5 (*b*). WHITE LEGHORNS (STATION HOLDERS). 10 pens.

1	105	Mrs. J. Brown, Gorsebank, Culcrum, Cloughmills, Co. Antrim.	576	248	47	3	824
2	112	Mrs. M. Noble, Roundpark House, Killycramph, Lisnaskea, Co. Fermanagh.	312	493	70	2	805
3	111	Mrs. J. Knox, Shanmullagh, Ederney, Co. Fermanagh.	420	351	30	1	771

SECTION 5 (*c*). RHODE ISLAND REDS (STATION HOLDERS). 20 pens.

1	117	Mrs. R. J. Dunn, Ballyskeagh, Artigarvan, Co. Tyrone.	510	456	96	1	966
2	127	Mrs. H. McMaster, Little Ballymena, Broughshane, Co. Antrim.	741	193	16	2	934
3	130	Mrs. H. Rea, Lisowen, Crossgar, Co. Down.	705	194	10	—	899
4	115	Mrs. H. H. Dickson, Lower Coagh, Co. Tyrone.	582	283	75	8	865

SECTION 6. POULTRY CLUBS AND YOUNG FARMERS' CLUBS. 12 pens.

Position.	No. of pen.	Name and Address of Club.	No. of eggs laid during 36 weeks.				Score Value
			Super Grade	1st Grade	2nd Grade	Below 2nd Grade	
1	135	Aghadowey Poultry Club, Co. Derry. (Rhode Island Reds)	386	443	95	10	829
2	145	Saintfield Young Farmers' Club. Co. Down. (Rhode Island Reds)	391	417	103	2	808
3	141	Crumlin Poultry Club, Co. Antrim. (White Wyandottes)	367	418	197	14	785

"Score value" means the total of the super grade and first grade eggs. The pen of Rhode Island Reds entered by Miss J. A. Irwin, Mount Irwin, Tynan, Co. Armagh, in Section 3, is now leading in the entire test, while the pen of White Wyandottes entered by Mr. J. C. Stewart, Balloo, Killinchy, Co. Down, in Section 1 is second. The pen of White Wyandottes entered by Mr. C. E. Crooke, The Rocks, Blaney, Enniskillen, in the Station Holders' Section, 5(a), is now third.

PRICES OF FEEDING STUFFS AT SPECIFIED CENTRES.

The following table shows the retail cash prices per cwt. of Feeding Stuffs at 1st June, 1937, in ten representative centres in Northern Ireland.

	Antrim	Armagh	Ballymena	Belfast	Castlewellan	Coleraine	Dungannon	Enniskillen	Omagh	Strabane
	s. d.	s d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
STARCHY FOODS :										
Maize (whole)	7 0	—	7 6	6 9	7 9	7 9	7 6	7 9	—	7 6
Maize Meal	8 0	8 0	7 6	7 6	8 0	7 9	7 6	8 0	7 9	8 0
Maize, Flaked	8 6	8 6	8 0	8 0	8 3	8 6	8 6	—	8 9	8 6
Wheat (whole)	10 6	11 0	11 6	11 0	11 6	12 0	—	—	—	—
Bran, Red	9 6	9 6	8 6	9 3	—	9 0	9 0	10 0	9 6	8 9
Bran, White	10 0	10 6	10 0	10 6	10 3	10 6	10 0	11 0	10 6	10 3
Pollard, Brown	9 6	9 0	9 3	9 6	—	9 6	9 0	10 0	9 0	8 9
Pollard, White	—	10 0	9 6	10 6	10 3	10 0	10 0	10 6	10 3	10 3
Barley Meal	10 6	10 6	10 0	10 6	10 3	10 0	10 6	10 6	10 6	11 0
Tapioca Root Flour	—	—	8 1½	—	—	9 0	8 6	—	—	—
Oats (whole)	8 6	10 6	10 6	10 6	9 6	10 8	10 0	10 0	8 0	8 8
Crushed Oats	9 3	11 0	10 9	11 0	10 0	11 6	—	11 0	9 0	—
PROTEIN FOODS :										
Linseed (whole)	13 0	16 0	18 0	18 0	20 0	19 0	20 0	16 6	18 6	17 6
Linseed Cake, home-made ..	—	—	11 3	12 0	11 3	12 0	11 6	11 0	12 6	—
Linseed Cake, foreign ..	11 0	—	10 6	11 0	—	11 6	10 6	9 0	11 0	11 0
Linseed Cake Meal	11 0	11 0	11 0	11 0	11 3	12 0	11 6	11 6	11 6	11 0
Cotton Cake, decorticated ..	10 6	—	9 6	11 0	10 0	10 0	10 6	10 6	—	10 9
Earthnut Cake, decorticated ..	10 6	—	10 0	10 0	—	10 6	9 0	10 0	10 6	—
Soya Bean Meal (extracted) ..	11 3	11 0	11 0	11 0	—	10 0	11 0	11 0	10 6	11 6
Fish Meal (60% protein) ..	—	—	—	16 0	—	—	—	—	16 6	—
Meat Meal (60% protein) ..	15 6	15 6	14 9	—	16 0	15 6	16 0	16 0	15 6	—
Meat and Bone Meal (40% protein)	—	—	—	10 0	—	—	11 6	—	—	12 0
MEDIUM PROTEIN FOODS :										
Palm Kernel Cake	9 6	—	9 3	—	—	9 0	—	—	—	—
Palm Kernel Meal	9 6	9 6	9 6	—	—	9 6	—	—	—	—

NON-CONCENTRATES.—The average prices at representative markets at the beginning of June, were as follows: Potatoes, 5/11¼d. per cwt.; Turnips (Swede), 8d. per cwt.; Oat Straw, 46/4d. per ton; Upland Hay, 76/10d. per ton; Meadow Hay, 58/10d. per ton.

AVERAGE PRICES OF FEEDING STUFFS.

The following table shows the average retail cash prices per cwt. of feeding stuffs at 1st June, 1937, with comparative prices as at the first of the previous month; the costs per unit of protein equivalent and of starch equivalent are also given in respect of each food.

	Protein equivalent	Starch equivalent	Average price per cwt. at		Cost per unit of Protein equivalent		Cost per unit of starch equivalent	
			1st June	1st May	June	May	June	May
Protein Foods			s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Linseed ..	19.0	119.0	17 8	17 4	18 7	18 3	3 0	2 11
Crushed linseed	19.0	119.0	17 1	18 7	18 0	19 7	2 10½	3 1½
Linseed cake (home-made)	25.0	72.0	11 8	11 9	9 4	9 5	3 3	3 3
Linseed cake (foreign)	25.0	72.0	10 8	10 11	8 6	8 9	3 0	3 0
Linseed cake meal	25.0	72.0	11 3	11 5	9 0	9 2	3 1½	3 2
Decorticated Cotton cake	35.0	71.0	10 4	10 7	5 11	6 0½	2 11	3 0
Decorticated Earthnut cake	41.0	73.0	10 1	9 11	4 11	4 10	2 9	2 9
Extracted Soya Bean meal	38.0	64.0	10 11	11 0	5 9	5 9	3 5	3 5
Fish meal (60% protein)	53.0	59.0	16 3	16 2	6 2	6 1	5 6	5 6
Meat meal (60% protein)	55.0	61.0	15 7	15 8	5 8	5 8	5 1	5 2
Meat & bone meal (40% protein)	36.0	44.0	11 2	11 1	6 2	6 2	5 1	5 0
Medium Protein Foods								
Palm kernel cake	17.0	75.0	9 3	8 8	10 11	10 2	2 6	2 4
Palm kernel meal	17.0	75.0	9 6	9 1	11 2	10 8	2 6	2 5
Dried brewer's grains	13.0	50.0	7 0	—	10 9	—	2 10	—
Starchy Foods								
Maize	6.8	81.0	7 5	7 5	21 10	21 10	1 10	1 10
Maize meal	6.8	81.0	7 10	7 10	23 0	23 0	1 11	1 11
Flaked maize	8.6	83.0	8 4½	8 6	19 6	19 9	2 0	2 0½
Wheat	9.6	72.0	11 3	10 7	23 5	22 0	3 1½	2 11
Red bran	10.0	43.0	9 3	9 5	18 6	18 10	4 4	4 5
White bran	10.0	43.0	10 4	10 5	20 8	20 10	4 10	4 10
Brown pollard	11.0	60.0	9 3½	9 6	16 11	17 3	3 1	3 2
White pollard	11.0	60.0	10 2	10 4	18 6	18 9	3 5	3 5
Barley meal	7.0	70.0	10 5	10 7	29 9	30 3	3 0	3 0
Oats	7.6	60.0	9 8	8 10	25 5	23 3	3 3	2 11½
Crushed oats	7.6	60.0	10 5	9 3	27 5	24 4	3 6	3 1
Tapioca root flour	1.0	83.5	8 6½	8 7	170 10	171 8	2 0½	2 1
Non-Concentrates								
Potatoes	0.6	18.0	5 11	4 8½	197 3	156 11	6 7	5 3
Turnips (Swede)	0.7	7.0	0 8	0 10½	19 1	25 0	1 11	2 6
Upland hay	4.9	24.0	3 10	3 8	15 8	15 0	3 2	3 1
Meadow hay	4.6	31.0	2 11½	2 9½	12 10	12 2	1 11	1 10
Oat Straw	0.9	20.0	2 4	2 5½	51 10	54 7½	2 4	2 5½

The object of the foregoing tables, besides providing information regarding the prices of feeding stuffs and the trend of prices, is to give purchasers a

guide as to the economic purchase of supplies. It should be understood that the price per ton is not a sound basis on which to judge whether or not a particular food or grade of a particular food is good value for money. The composition of the foods is the only basis on which different grades can be compared. The value of foods of different kinds, but of the same nature in reference to market prices, can also be compared on this basis.

In the case of an artificial manure which supplies only one fertilising ingredient as, for example, sulphate of ammonia, which supplies nitrogen, the cost of the unit of nitrogen at the price charged can be determined quite readily by dividing the price per ton by the percentage of nitrogen in the sample, and the figure thus obtained is the cost of a unit of nitrogen. By this method the most economical source of nitrogen can be ascertained. Similarly, in the cases of phosphatic and potassic manures.

With feeding stuffs, however, the same method cannot be applied to determine comparative values. This is because every feeding stuff contains three important food constituents in varying proportions. These are (1) carbohydrates, (2) oils or fats, and (3) proteins or albuminoids. The carbohydrates comprise a group of substances such as starch, sugar and cellulose. These substances supply heat or energy to the animal, and the surplus goes to form fat. They are the fuel which the animal requires to keep the body "fires" burning. The oils of a feeding stuff are also heat and energy suppliers, and the surplus is stored as fat. The oils are approximately $2\frac{1}{2}$ times more valuable than the carbohydrates as heat and energy producers, but excess in a ration may lower its digestibility and cause digestive troubles. The proteins are the most valuable and most expensive food constituent. They contain nitrogen and are the part of the food from which products which contain protein are chiefly made. Thus the protein products, such as lean meat, milk and eggs, are formed principally from protein, and young, growing animals, dairy cows and laying hens must have an adequate quantity of protein for full growth, development and production.

While all animals require a certain amount of carbohydrates, oils and proteins, the relative amounts depend on the class of stock. For example, a two-year-old fattening bullock requires much less protein than a dairy cow in milk, and a fattening chicken less than a laying pullet.

There are wide differences in the composition of the different kinds of feeding stuffs. Some are rich in carbohydrates and, therefore, particularly valuable for fattening purposes. These include oats, maize, barley and wheat, and their products. Others are rich in protein and are valuable for producing flesh, milk and eggs. These include decorticated cotton cake, decorticated earthnut cake, meat meal and soya bean meal.

In the following table the composition of some of the commonly used feeding stuffs is shown—

	Water.	Protein.	Oil.	Carbohydrates.
Non concentrates				
Swede turnips ..	88	1	0.2	9
Potatoes ..	75	2	0.1	21
Cabbage ..	89	1.5	0.5	8
Oat Straw ..	14	4	2	37
Meadow hay ..	10	10	3	45
Pasture grass ..	80	3.5	0.8	10
Fattening Foods				
Crushed oats ..	13	9	6	60
Maize meal ..	12	10	4	70
Barley meal ..	13	12	2	66
Pollard ..	13	15	5	57
Flesh forming foods				
Decorticated Cotton cake ..	9	40	9	26
Decorticated Earthnut cake ..	10	46	7	23
Meat meal ..	11	60	6	—
Soya bean meal ..	11	44	1.5	32

The problem confronting the purchaser of feeding stuffs, who is concerned with the business of getting best value for money, is one which is much more difficult to solve than is the case with artificial fertilisers. There are at least four aspects of the problem to be considered:

(1) the quality of the different foods offered for sale. This can be determined by reference to the particulars of composition which a seller must give a purchaser in accordance with the Fertilisers and Feeding Stuffs Act.

(2) The physical condition of the foods, and if fresh or stale.

(3) The suitability of the foods for the purpose in view.

(4) The comparative values of the foods at the prices quoted.

The chief concern of this section of the Report is comparative values and, therefore, that aspect of the problem will be considered specifically.

The proteins play a part in the nutrition of the animal which cannot be taken by either carbohydrates or oils. In addition to this, the proteins, carbohydrates and oils have very different values for the production of energy or fat. It therefore follows that the simple procedure of totalling the percentages of these three ingredients and dividing this total into the price per ton in order to obtain a value for a unit of the food-stuff is quite unsound. Various methods have been used to compare the values of different feeding stuffs, but none is completely satisfactory. For practical purposes the least cumbersome is the

method whereby the food-stuffs are placed in groups of similar composition, and the values of the members of each group are then compared by consideration of (a) their protein equivalents, and (b) their starch equivalents. The starch equivalent is the number of pounds of starch which would be required to produce the same amount of "fat" in an animal as 100 pounds of the food-stuff in question. It is essentially a measure of the fat-producing value of the food-stuff. The protein equivalent is the number of pounds of digestible true protein, plus half the number of pounds of non-protein nitrogenous substances such as amides, present in 100 pounds of the food-stuff. It is a measure of the value of the food-stuff to the animal as a source of protein.

By this method all foods can be reduced to comparable standards based on (1) the protein equivalent, and (2) the starch equivalent.

The next stage in comparing values is to determine the cost of a unit of protein equivalent and of starch equivalent in the different foods which are being compared, and to enable the reader to do this the protein and starch equivalent figures for the different foods are given in the table on page 102, and also the cost per unit of protein equivalent and of starch equivalent in each case. These costs have been determined by dividing the protein equivalent figure and the starch equivalent figure, respectively, into the current price per ton, and the lower the quotient figures thus obtained the cheaper is the particular food as a source of protein or of starch equivalent as the case may be.

However, it would be quite misleading to compare the cost of a unit of protein equivalent in a protein food (which is purchased principally for its protein) with the cost of a similar unit in a starchy food. In other words, foods such as maize meal and pollard cannot be compared on the basis of cost of protein equivalent with foods such as decorticated cotton cake and meat meal.

The best course to adopt is to consider for what purpose the particular food is required, decide what foods are suitable for that purpose, examine the samples of these different foods which are offered and, if all appear to be satisfactory, apply the unit value system of determining which one provides protein equivalent or starch equivalent at the cheapest rate. A few examples may be helpful in explaining the procedure.

(1) Suppose it is intended to purchase a protein food for the purpose of balancing a ration for dairy cows. The protein foods suitable for dairy cows are decorticated cotton cake, decorticated earthnut cake and soya bean meal. From the table on page 102 it is seen that at the current average prices of these foods the cost of the unit of protein equivalent in each is as follows:—

Decorticated cotton cake	...	...	5/11d.
Decorticated earthnut cake	...	...	4/11d.
Soya bean meal	...	...	5/9d.

Accordingly decorticated earthnut cake is the cheapest source of protein.

(2) A protein food is required as a milk substitute to balance the ration for fattening pigs. The foods suitable for this purpose are soya bean meal, meat meal and meat and bone meal. Referring again to the table, it is seen that at the current average prices of these foods the cost of the unit of protein equivalent in each is as follows :—

Soya bean meal	...	...	5/9d.
Meat meal (60% protein)	...	...	5/8d.
Meat and bone meal (40% protein)	...		6/2d.

Therefore meat meal (60% protein) is the cheapest source of protein amongst the purchased foods suitable for pigs. This example shows also how the price per ton may mislead a purchaser into thinking he is being economical when he buys at the cheapest price. The 60% meat meal costs 4/7d. per cwt. more than the 40% meat and bone meal, and yet it is a cheaper source of protein than the latter. Besides, a lesser proportion in the meal mixture will suffice, and having usually a lower content of oil than the 40% grade, it is likely to prove more satisfactory than that grade, both from the thriving point of view and its effect on the quality of the bacon.

(3) Whether is it more economical to feed white pollard than brown pollard or white bran than red bran, even though the prices per ton of the white grades are higher than those of the brown or red grades? The figures in the table show that the cost of both the unit of protein equivalent and of starch equivalent is less for the brown pollard than the white, and less for the red than the white bran. It follows, therefore, that at current prices the coloured grades of pollard and bran are cheaper than the white grades. It should be remembered in this connection, however, that the comparison of costs in these cases have been made on the assumption that the composition of the coloured grades is the same as that of the white grades. A pollard containing say, 8 per cent. fibre, even if of a white colour, would have a far lower feeding value than one containing only 4 per cent. of fibre. Colour is not a guide as to the feeding value of pollard or bran.

PRICES OF FAT STOCK.

The following were the average prices per live cwt. of bullocks and heifers, sold at Belfast Auction Marts during each of the four weeks ended 25th May, 1937 :—

Week ended.	Bullocks.	Heifers.
	s. d.	s. d.
4th May ...	44 0 ...	43 9
11th May ...	44 6 ...	43 6
18th May ...	44 9 ...	43 9
25th May ...	44 3 ...	44 6

If the information you require is not obtainable in these pages, write to the Secretary, Ministry of Agriculture, Stormont, (Room 401), Belfast.

PRICES OF LIVE STOCK.

Average prices of Live Stock at Fairs during the month of May, 1937.

Date	Fair	Calves (under 9 months)	Store Cattle	Fat Cattle (18 months and over)	Springers		Milch Cows	Fat Lambs (under 12 months old)	Fat Sheep (over 2 years old)	Young Pigs
					Cows	Heifers				
		Per head	Per cwt.	Per cwt.	Per head	Per head	Per head	Per head	Per head	Per head
		£ s.	Live weight.	Live wgt.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.
4	Omagh	7 0	44/- to 47/6	45/-	14 10	14 0	14 0	*2 2/6	*2 5	—
5	Londonderry ...	—	32/- to 40/-	41/-	15 10	14 10	—	—	—	1 5
5	Rathfriland	6 6	37/- to 42/-	44/-	16 15	15 15	16 5	—	‡2 10	1 6/3
									†1 17/6	
6	Ballymoney... ...	6 8	35/3 to 43/-	39/-	17 0	15 10	14 15	—	—	1 10/6
7	Moy	—	38/- to 46/-	40/-	16 15	13 17/6	17 3/9	—	*1 17/6	—
8	Irvinestown ...	7 2/9	42/6 to 45/-	43/-	15 0	14 0	13 10	‡2 10	*2 5	1 8/6
10	Enniskillen ...	5 14	33/- to 40/-	44/-	17 0	15 0	15 10	—	‡2 12	1 12
11	Strabane	6 5	42/- to 44/-	44/-	15 10	18 0	—	—	—	—
13	Crossgar	—	40/- to 44/-	—	—	—	—	—	—	1 12/6
14	Ballygawley ...	—	32/- to 41/-	40/-	16 10	—	15 15	—	*2 0	1 11/6
15	Portadown	5 3/3	32/- to 38/-	39/-	16 0	15 0	16 0	—	—	1 10
17	Camlough	5 10	28/6 to 34/-	40/-	17 0	15 10	14 0	*2 0	*2 0	—
18	Claudy	—	32/6 to 40/-	44/-	14 0	12 5	—	—	—	1 2/6
19	Kilrea	5 10	—	42/-	16 0	14 0	15 0	—	—	1 7/6
19	Lisnaskea	5 10	32/- to 43/-	42/-	14 0	14 0	13 0	—	—	1 11/6
20	Ballynahinch ...	—	37/- to 40/-	—	16 10	15 0	14 5	*2 5	*2 0	1 15
21	Moneymore ...	5 15	35/- to 44/-	41/6	17 0	15 10	—	*1 17/6	*2 6/3	1 7/6
22	Ballymena	7 11/6	27/6 to 41/-	—	22 0	21 0	21 0	—	—	1 10
22	Fintona	6 8/9	42/6 to 47/6	43/6	17 0	15 0	14 0	*2 2/6	*2 0	1 7/6
27	Antrim	8 1/9	—	42/6	21 0	19 0	—	—	—	1 8
28	Killylea	—	30/- to 45/-	42/-	17 10	—	15 0	—	*2 3/6	—

* Downs and Cross. ‡ Long Wools. † Mountain.

SHIPMENTS OF LIVE STOCK.

Statement showing the Shipments of Live Stock from Northern Ireland ports during the following periods:—Months of May, 1937, April, 1937, May, 1936; Five Months ended 31st May, 1937, and 31st May, 1936

PORTS OF:—	CATTLE.						SHEEP.				PIGS.			
	Fat	Stores	Milch Cows	Springers.	Calves	Total	Fat	Stores	Lambs	Total	Fat	Stores	Total	Horses
Belfast	3,424	8,036	1,185	174	—	12,819	323	—	5,127	5,450	9,783	—	9,783	539
Larne	22	2,951	35	—	—	3,008	—	—	417	417	4,028	334	4,362	37
Londonderry ...	56	11,479	11	52	756	12,354	88	—	1,690	1,778	1,585	—	1,585	4
Newry	—	207	—	—	—	207	—	—	—	—	—	—	—	—
Total, May, 1937 ...	3,502	22,673	1,231	226	756	28,388	411	—	7,234	7,645	15,396	334	15,730	580
Total, April, 1937 ...	5,492	24,686	1,085	155	1,171	32,589	1,605	—	592	2,197	12,033	320	12,353	310
Total, May, 1936 ...	5,109	16,484	1,046	206	2,759	25,604	280	—	9,657	9,937	3,317	104	3,421	923
Total, Five months ended 31st May, 1937 ...	32,112	91,640	5,419	583	2,729	132,483	17,515	—	7,892	25,407	60,125	1,406	61,531	1,384
Total, Five months ended 31st May, 1936 ...	38,262	78,328	5,125	537	10,982	133,234	6,262	—	10,647	16,909	20,230	288	20,518	2,417

IMPORTS AND EXPORTS.

Table showing the Imports and Exports through Northern Ireland ports of certain Agricultural Products during the month ended 30th April, 1937, and the four months ended 30th April, 1937, with comparative figures for the corresponding periods in 1936.

(These figures are supplied through the courtesy of the Ministry of Commerce and are subject to revision).

COMMODITY.	IMPORTS.				EXPORTS.			
	Month ended 30th April	Month ended 30th April	4 months ended 30th April	4 months ended 30th April	Month ended 30th April	Month ended 30th April	4 months ended 30th April	4 months ended 30th April
	†1937	1936	†1937	1936	†1937	1936	†1937	1936
Bacon ... ... cwt.	1,599	2,318	8,181	12,397	28,869	23,487	130,109	121,171
Hams ... ... cwt.	482	1,352	4,801	6,588	10,356	11,132	41,054	47,671
Pork ... ... cwt.	18	1,355	2,438	5,636	3,394	1,769	12,329	12,834
Butter ... ... cwt.	18,896	19,458	64,934	66,322	189	112	680	829
Eggs ... ... gt. hds.	7,300	211,123	162,317	475,975	393,878	396,771	903,796	953,386
Oat Products (inc. Oatmeal)cwt.	1,424	1,733	8,112	8,365	7,155	5,237	37,224	34,934
Potatoes ... ... tons	14	2,673	2,346	7,888	*29,670	*33,828	*106,892	*118,679
Poultry ... ... cwt.	5	386	1,302	2,256	9,220	6,277	84,447	81,649
Grass Seeds ... cwt.	752	1,491	4,981	5,558	31,697	58,266	178,935	208,430

* These figures represent the quantities of potatoes inspected for shipment by the Ministry of Agriculture.

† These figures do not include direct trade with places abroad.

Table showing the numbers of Live Stock (1) exposed for sale, and (2) sold at 19 fairs in Northern Ireland during the months of May, 1936, and April and May, 1937.

Description of Live Stock.	May, 1936.		April, 1937.		May, 1937.	
	Number exposed for sale.	Number sold.	Number exposed for sale.	Number sold.	Number exposed for sale.	Number sold.
Store Cattle ...	8,362	6,615	7,190	5,983	6,132	5,233
Fat Cattle ...	1,080	1,005	1,321	1,221	939	854
Dairy Cattle ...	1,197	955	1,032	932	1,036	863
Sheep ...	640	426	305	254	286	252
Lambs ...	267	207	35	4	161	142
Young Pigs ...	3,100	2,497	3,132	2,100	2,597	2,026

There was a further general improvement in the trade for store and fat cattle last month, and prices firmed to higher levels. Supplies recorded a decrease on the month, and as a general rule they were much below the average for the time of year. There was a well-sustained enquiry for the cross-channel trade, and home graziers experienced considerable difficulty in obtaining their requirements. Very good clearances were effected, and recent high price levels were exceeded in many instances. Most of the stock were of moderate quality. Trade ruled exceptionally fast for black and blue polly bullocks and heifers in forward condition, whilst good type yearlings also experienced a brisk demand. Young fat cattle showing finish and weighing about 8 to 9 cwts. were ready sellers at around 45/- per cwt. live weight, but in general business in the beef section was exceptionally good, and prices were higher than for some years past. In the dairy cattle end, springing and milch cows were in moderately good supply, whilst springing heifers were inclined to be scarce. The latter were a particularly keen trade at firmer rates, but all animals showing quality and condition were in demand at fully recent prices.

Supplies of sheep and lambs continued below normal for the time of the year, and as a general rule the animals were a little backward in condition. There was a very keen enquiry for spring lambs, but these were in limited number, and the majority lacked finish. Good fat sheep also were scarce. Prices were a little better on the month. Some ewes with lambs at foot changed hands at remunerative rates.

Young pigs also were in shorter number than is usual at this time of the year. Trade ruled steady at fully late rates, and a good proportion of the offerings changed ownership.

In general it may be added that the tone of the trade in live stock, which has been steadily improving since the commencement of the year, was remarkably good last month, but the volume of business was inclined to be restricted by the smaller supplies of good quality stock available, chiefly as the result of the severe winter and the high cost of feeding stuffs. Apart from the business done at fairs, there was a large and satisfactory trade conducted directly between buyers and producers at the farms, whilst the very high prices realised at the weekly auction sales in the Belfast marts recorded on page 107, indicate the recent marked improvement in the state of the beef trade.

12th June, 1937.

This report will be sent free monthly as issued on application being made to the Secretary, Ministry of Agriculture, Stormont, Belfast.

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MINISTRY OF AGRICULTURE.

List of Leaflets and other Publications.

LEAFLETS.

No 1. Flax Seed, 1937.
" 2. Improvement of Farm Poultry.
" 3. Feeding for Egg Production.
" 4. Marketing of Eggs.
" 5. The Dishorning of Calves.
" 6. The Packing of Apples in Standard Boxes.
" 7. Potato Trials
" 8. Seed Testing for Farmers.
" 9. The Renovation of Orchards.
" 10. Fruit Tree Pests—Capsid Bugs.
" 11. Fruit Tree Pests—Aphides and Apple Sucker.
" 12. Fruit Tree Pests—Caterpillars
" 13 Contagious Abortion in Cattle
" 14. Cheese-making on the Farm.
" 15. Suitable Varieties of Fruit.
" 16. The Feeding of Dairy Cows.
" 17. Home Bottling of Fruits and Vegetables.
" 18. Marketing of Dead Poultry.
" 19. How to Feed Linseed.
" 20. The Hatching and Rearing of Chickens.
" 21. The Uses and Advantages of Portable Poultry Houses.
" 22. Leather-Jacket Grubs.
" 23. The Handling and Care of Wool.
" 24. Fluke in Sheep.
" 25. The Rearing and Management of Young Horses.
" 26. Ordnance Survey Maps for Farmers.
" 27. How to Keep Eggs Clean
" 28. The Construction of a Laying House for Poultry.
" 29. The Selection and Breeding of Laying Hens.
" 31. Coccidiosis in Poultry
" 32. Roup of Poultry (Fowl Pox).
" 33. Spraying Calendar for Apple Orchards.
" 34. The Pruning of Apple Trees.
" 35 The Fattening of Pigs.
" 36. Advantages of Milk Recording.
" 37. The Raising and Fattening of Turkeys.
" 38. The Destruction of Charlock.
" 39. The Production of Clean Milk.
" 40. The Laying Down and Management of Temporary Pastures.
" 41. Blackleg, Blackquarter or Quarterill.
" 42. The Purchase of Balanced Rations for Dairy Cows.
" 43. Tuberculosis in Poultry.
No. 44. Results of Crop Experiments, 1936.
" 45. The Breeding and Rearing of Pigs.
" 46. Hints for Winter Egg Production.
" 47. The Care and Management of Sheep.
" 49. American Gooseberry Mildew.
" 50. Potato Blight.
" 51. Butter-making on the Farm.
" 52. Gapes in Chickens
" 54 The Breeding and Rearing of Calves.
" 55. Destruction of Ragwort or Benweed.
" 56 Identification of Egg Supplies.
" 57. How to have Eggs of First Quality.
" 58. How the Fertilisers and Feeding Stuffs Act benefits the Farmer.
" 59. Bacillary White Diarrhoea (Pullorum Disease).
" 60. Advantages of Winter Agricultural Classes.
" 61. The Care and Management of Breeding Bulls.
" 62. The Production of Timber on the Farm.
" 63. Sheep—Castration, Docking, Foot-Rot and Care of Feet.
" 64 The Destruction of Warble Fly Maggots in Cattle.
" 65. The Packing of Apples in Barrels
" 66. Seed Testing Facilities for Traders.
" 67. The Cultivation of Vegetables.
" 68. The Cultivation of Strawberries.
" 69. The Construction of Piggeries
" 70. Ringworm.
" 71. The Cultivation of Raspberries.
" 72. Tree Planting for Shelter and Ornament.
" 73. The Propagation and Maintenance of Healthy Stocks of Potatoes.
" 74. New Pure Strains of Flax.
" 75. Pig Production and the Pigs Marketing Scheme.
" 76. Acarine (Isle of Wight) Disease of Bees.
" 77. Licensing of Milk Producers and Distributors.
" 78. Graded Milk.
" 79. The Picking and Storing of Apples.
" 80. Hoose or Husk in Farm Stock.
" 81. The Construction of Cow Houses.
" 82 White Scour in Calves.
" 83. The Care, Management and Feeding of the Poultry Breeding Stock.

Any of the above leaflets may be obtained free of charge and post free on application to the Secretary, Ministry of Agriculture, Stormont, Belfast.

CIRCULARS.

No. 1. Phosphatic Fertilisers.
" 5. Why Pay a Tax on the Horns of Cattle ?
" 8. Basic Slag.
" 9. Smut in Oats.
" 10. Purchase of Fertilisers and Feeding Stuffs.
" 11. Fertilisers and Feeding Stuffs Act—General Summary.
" 12. The Treatment of Liver Fluke.
" 13. The Ox-Warble Fly
306. Fertilisers and Feeding Stuffs Act, 1926—Revision of Regulations.

MISCELLANEOUS PUBLICATIONS.

Store Cattle.
Reports on Egg-Laying Tests.
Crop Insurance.
List of Growers of Certified Crops of Immune Varieties of Potatoes.
List of Growers of Certified Crops of Non-Immune Varieties of Potatoes.
The Ministry's Monthly Report.
Register of Premium Stallions.
Guide to the Live Stock Breeding Act (Northern Ireland), 1922.
Guide to the Marketing of Fruit Act (Northern Ireland), 1932.

Any of the above publications may be obtained free of charge and post free on application to the Secretary, Ministry of Agriculture, Stormont, Belfast.

The following publications can be obtained from His Majesty's Stationery Office, 80 Chichester Street Belfast, at the prices stated :—

(1) The Annual Report of the Ministry of Agriculture for Northern Ireland. Price 2/6 net.
(2) Annual Report upon the Agricultural Statistics of Northern Ireland. Price 2/- net.
(3) The Journal of the Ministry of Agriculture for Northern Ireland. Price 2/6 net.
(4) The Agricultural Output of Northern Ireland, 1925. Price 2/6 net.

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